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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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08/892,902 07/14/97 WALLER

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ART UNIT	PAPER NUMBER
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1774

10

10/08/99

DATE MAILED:

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

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10/07/99

Office Action Summary

Application No.
08/892,902

Applicant(s)
Clinton P. WALLER Jr. et al.

Examiner
M. Yamnitzky

Group Art Unit
1774



☒ Responsive to communication(s) filed on Aug 30, 1999

☒ This action is **FINAL**.

☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire three (3) month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Disposition of Claims

☒ Claim(s) 1, 4, 5, 10-16, 18, 19, and 21-24 is/are pending in the application.

Of the above, claim(s) _____ is/are withdrawn from consideration.

☒ Claim(s) 24 is/are allowed.

☒ Claim(s) 1, 4, 5, 10-16, 18, 19, and 21-23 is/are rejected.

☐ Claim(s) _____ is/are objected to.

☐ Claims _____ are subject to restriction or election requirement.

Application Papers

☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on _____ is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☐ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been
☐ received.

☐ received in Application No. (Series Code/Serial Number) _____.

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

☐ Notice of References Cited, PTO-892

☒ Information Disclosure Statement(s), PTO-1449, Paper No(s). 8

☐ Interview Summary, PTO-413

☐ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

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1. This Office action is in response to applicant's amendment received 08/30/99 (Paper No. 9) which amends the specification, cancels claims 2, 3, 6-9, 17 and 20, amends claims 1, 4, 5, 10-12, 14-16 and 18, and adds claims 21-24.

Claims 1, 4, 5, 10-16, 18, 19 and 21-24 are pending.

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

2. Applicants' comments regarding the drawings are noted.

The objection to the disclosure as set forth in the previous Office action (Paper No. 6) is overcome by applicants' amendment of the specification.

The rejection under 35 U.S.C. 112, second paragraph as set forth in Paper No. 6 is moot in part because of the cancellation of various claims, and is overcome in part by applicants' amendment of the claims. Remaining issues, and new issues raised by applicants' amendment, are set forth later in this Office action.

With respect to the issue of the scope of "pseudo-halides" (claim 15), this issue is withdrawn in consideration of the reference provided by applicants with the supplemental IDS received 08/30/99 (Paper No. 8).

With respect to the issue regarding limitations imposed by the recitation in some of the inkjet receptor medium claims of interaction with dispersants, the examiner will interpret this recitation as a "capable of" statement related to an intended use since the claimed medium is not

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required to be printed with an ink comprising pigment particles and dispersants. Similarly, the requirement for a surfactant “that carries away an ink passing through the substrate except for pigment particles in the ink” will be interpreted by the examiner as a “capable of” statement related to an intended use since the claimed medium is not required to be printed with an ink comprising pigment particles, and the claimed method of making the medium does not require printing with an ink comprising pigment particles.

The rejection under 35 U.S.C. 102(e) based on Davis et al. (5,695,820) is overcome by applicants’ amendment of the claims.

3. In the remarks of Paper No. 9, applicants state that claims 1, 16 and 18 have been amended to incorporate the language of claim 8 which was free of any prior art rejection. While it is true that claim 8 was free of any prior art rejection, the examiner notes that independent claims 1 and 16 (with claim 18 referring to claim 1) as amended are not commensurate in scope with previously examined claim 8. Claim 8 depended from claim 2 which required that the pigment management system comprise functionalized particulates within the pores. Claim 8 further required that the fluid management system comprise a surfactant that carries away an ink passing through the substrate except for pigment particles in the ink. Amended claims 1 and 16 allow for the pigment management system to comprise functionalized particulates within the pores of the porous substrate or a functionalized coating along the surfaces of the pores of the substrate, and require that the fluid management system comprise a surfactant that carries away an ink passing

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through the substrate except for pigment particles in the ink (emphasis added). Amended claims 1 and 16 actually contain the limitations of previously examined claims 8 or 9, set forth in the alternative. Claim 9 was rejected under 35 U.S.C. 102(b) in Paper No. 6.

With respect to new independent claims 22 and 24, the examiner notes that claim 22 is previous claim 9 written in independent form and claim 24 is similar to previous claim 5 written in independent form (claim 24 uses somewhat different terminology than claim 5 in that claim 24 does not refer to interaction with dispersant). As noted above, claim 9 was subject to a prior art rejection in Paper No. 6. There was no prior art rejection for claim 5.

4. Claim 23 is rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. This is a new matter rejection.

The specification as originally filed provides insufficient support for recitation of "fluorinated particulates". The original specification describes functionalized particulates that are silica agglomerates which are further referred to as a "functionalized silica", "fluorinated silica agglomerates", and "fluorinated silica particles". Claim 23, in reciting "fluorinated particulates", encompasses fluorinated particles other than fluorinated silica particles/agglomerates but there is no description in the original specification of such fluorinated particles.

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5. Claims 4, 5, 15, 18, 19 and 23 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

It is not clear if claims 4 and 15 are limiting the pigment management system to one which comprises a functionalized coating. Alternatively, it is not clear if claims 4 and 15 are merely limiting the functionalized coating which may be used for the pigment management system; that is, the system could comprise the functionalized particulates or the functionalized coating, and if the system comprises the functionalized coating, the coating is limited to one comprising a multivalent metal salt as set forth in claims 4 and 15.

Similarly, it is not clear if claims 5 and 23 are limiting the pigment management system to one which comprises functionalized particulates, or if claims 5 and 23 are merely limiting the functionalized particulates which may be used for the pigment management system.

Proper antecedent basis is lacking for "the salts" as recited in line 4 of claim 15.

The inkjet ink recited in line 3 of claim 18, with claim 19 dependent therefrom, is not explicitly limited to an inkjet ink comprising pigment particles and dispersants. Accordingly, it is not clear whether the pigment particles which are agglomerated (claim 18)/chemically interacted with (claim 19), and the dispersants which are interacted with (claim 19) are necessarily from the inkjet ink.

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6. Claims 1, 4, 5, 15, 16, 18, 22 and 23 are rejected under 35 U.S.C. 102(b) as being anticipated by Cousin et al. (4,554,181).

Cousin et al. disclose an ink jet recording sheet comprising a porous substrate and a polyvalent metal salt. Cousin et al. teach that cationic or non-ionic surfactants may be included in the recording surface so as to increase the speed with which the ink wets the surface, and enhance rapidity of set and enhance absorption. For example, see column 2, lines 38-51, c. 5, l. 30-31 and 46-63, c. 6, l. 12-28, and c. 8, l. 33-36.

The surfactants included in the recording surface constitute a fluid management system. The polyvalent metal salt is inherently in contact with surfaces of the pores of the substrate, and meets the requirement for a pigment management system comprising a functionalized coating. The language of claim 4 regarding interaction with dispersants is interpreted as a "capable of" statement directed to the intended use of printing with a pigment-containing ink. The polyvalent metal salt of the prior art is capable of interacting in the manner set forth in claim 4.

The recording sheet disclosed by Cousin et al. is printed using ink jet ink. Claim 18 is considered to be anticipated by the prior art subject to clarification as to whether the ink jet ink used according to claim 18 is actually required to comprise pigment particles.

Claims 5 and 23 are included in this rejection subject to clarification as to whether these two claims are limiting the pigment management system to one which comprises functionalized particulates, or are merely limiting the functionalized particulates which may be used for the pigment management system. If the latter, then these claims are anticipated by the prior art

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because Cousin et al. anticipate the claimed embodiment in which the pigment management system comprises a functionalized coating.

7. Claims 10-14, 18 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cousin et al. (4,554,181) as applied above and for the further reasons set forth below.

The disclosure of the patent to Cousin et al. is as set forth in the rejection under 35 U.S.C. 102(b).

Cousin et al. teach that the substrate may be made from paper, synthetic paper, or plastic film. Cousin et al. do not specifically disclose a microporous membrane as required by present claims 10, 11 and 21. It would have been within the skill of a worker in the art at the time of the invention to select a suitable porous substrate based on the properties that a particular porous substrate would lend to the final product.

Cousin et al. teach that surfactants may be included, but do not specifically disclose the surfactants recited in present claims 12-14. Absent a showing of criticality for a particular surfactant, it is the examiner's position that it would have been within the skill of a worker in the art to select a surfactant within the scope of the subspecies of cationic and non-ionic surfactants, as taught by the prior art, from known commercially-available surfactants. There is no suggestion in the present specification that the surfactants used in the present invention are not known commercially-available surfactants.

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Cousin et al. do not disclose printing an image using an inkjet ink comprising pigment particles. Since pigment-containing ink jet inks are known, it would have been an obvious modification to one of skill in the art at the time of the invention to print an image on the prior art ink jet recording sheet by using a pigment-containing ink jet ink. The pigment particles in the ink would inherently be agglomerated by the polyvalent metal salt in the prior art recording sheet.

8. Applicants' arguments filed 08/30/99 have been fully considered but they are not persuasive.

Applicants argue that the rejections based on the Cousin patent are moot because the independent claims have been amended to incorporate the language of claim 8 which was free of any prior art rejection. This argument is not persuasive because, as previously noted in this Office action, the amended independent claims alternatively encompass the embodiments claimed in previous claims 8 and 9, and the Cousin patent anticipates the embodiment claimed in previous claim 9.

Applicants traverse the rejections in the event that the rejections may apply to the present claims. Applicants describe some of the features of the ink jet recording sheet of Cousin et al. (making no mention of the surfactant taught by Cousin et al.) and further set forth the features of present claims 1, 16 and 18. Applicants argue that Cousin et al. do not disclose or suggest an inkjet receptor medium or a method of making or using an inkjet receptor medium as recited in the present claims. Applicants argue that the Cousin patent does not contain all the elements

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recited in the claims and therefore does not anticipate the claims. However, it is not clear from applicants' arguments what elements of the present claims that are rejected under 35 U.S.C. 102(b) are considered to be missing from the Cousin patent.

9. Claim 24 is allowed.

10. Claim 19 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Claim 19 depends from claim 18. If claim 19 is rewritten to include all the limitations of claim 18, the examiner suggests amending "(b)" as set forth in present claim 18 to recite "printing an image on the medium using an inkjet ink comprising dispersed pigment particles, wherein...". Such an amendment would overcome the rejection of claim 19 under 35 U.S.C. 112, second paragraph.

11. Applicants' amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicants are reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after

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the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

12. Any inquiry concerning this communication should be directed to Marie R. Yamnitzky at telephone number (703) 308-4413. The examiner can generally be reached at this number from 6:45 a.m. to 3:15 p.m. Monday-Friday.

The current fax numbers for Art Unit 1774 are (703) 305-3599 for official after final faxes and (703) 305-5408 for all other official faxes. (Unofficial faxes for Art Unit 1774 can be sent to (703) 305-5436.)

MRY
10/07/99



MARIE YAMNITZKY
PRIMARY EXAMINER

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